

CLAIMS

1. A method for extracting acetaldehyde and determining its content, particularly in PET samples in the form either of a whole preform or of PET pieces or granules, comprising:
 - 5 locating the PET sample in a desorption cell, scavenging said desorption cell ⁽¹⁾ with air, incubating and heating the PET sample placed in the cell, ⁽¹⁾ pressurizing the cell, ⁽⁹⁾ charging a loop, and transferring the loop ⁽⁹⁾ content to a gas chromatography column and ⁽¹⁶⁾ from there to a detector. ⁽¹⁷⁾
 - 10 2. A method as claimed in claim 1, wherein cell ⁽¹⁾ scavenging is effected with air.
 3. A method as claimed in the preceding claims, wherein the loop ⁽⁹⁾ content is transferred by a transport gas such as hydrogen.
 4. A method as claimed in the preceding claims, wherein the gas ⁽¹⁶⁾ chromatography column is optimized for acetaldehyde separation.
 - 15 5. A method as claimed in the preceding claims, wherein after an analysis, cell scavenging with air automatically commences after removing the PET sample.
 6. An analyzer for extracting acetaldehyde and automatically
 - 20 determining its content, particularly in PET samples, characterised by comprising, in combination:
 - a desorption cell (1) into which said sample is inserted; <<-->>
 - an analyzer system comprising a separation column (16) optimized for acetaldehyde separation;
 - 25 - a loop (9) connectable to said cell (1) to receive an aeriform acetaldehyde sample, which is then transmitted to the optimized
- << MEANS FOR SCAVENGING SAID DESORPTION CELL (1) WITH AIR;
MEANS FOR INCUBATING AND HEATING THE PET SAMPLE PLACED
IN THE CELL (1); MEANS FOR PRESSURIZING THE CELL (1); >>

separation column (16) and then to a detector (17), a complex of controlled valve means being included for manipulating the fluids flowing within the analyzer.

7. An analyzer as claimed in claim 6, wherein the complex of valve means is controlled in accordance with a program by a data processing and control system (19).

8. An analyzer as claimed in claims 6 and 7, wherein means (19) are provided for measuring the partial pressure during the desorption step.

9. An analyzer as claimed in the preceding claim, wherein the cell (1) is provided with a perforable baffle (60) for the injection thereinto of a mixture of known acetaldehyde concentration, for calibration purposes.

10. An analyzer as claimed in claim 8, wherein for calibration purposes the cell (1) can be connected (at 24) to a cylinder or similar source supplying a nitrogen/acetaldehyde mixture of known acetaldehyde concentration.

11. An analyzer as claimed in claim 6, wherein the cell (1) is provided with electrical controlled heating means (32).